REMARKS

THE CLAIMS

Claims 1-15 were pending, claims 1-3 and 7-15 have been withdrawn from examination, claims 1-3 and 7-15 have been canceled and claims 16-27 substituted therefor, and various claims have been amended. Accordingly, claims 1-3, 7-27 remain pending in this application. The examiner is hereby authorized to cancel withdrawn claims 1-3 and 7-15 upon a finding of allowable subject matter in this application. Reconsideration and allowance of the pending claims is requested by the applicant.

THE PRODUCT OF NATURE REJECTION

Claim 4-6 stand rejected under USC1.101, because the product exists in nature.

Claims 4-6 have been canceled and claims 16-27 substituted for them. Claims 16-27 are believed to be free of the above ground of rejection.

THE LACK OF WRITTEN DESCRIPTION REJECTION

Claims 4-6 stand rejected under 35USC1.112, second paragraph, allegedly because they are lacking in written description. This ground is traversed.

The applicant has canceled claims 4-6 and is submitting claims 16-27 in substitution therefor. The examiner is invited to consider the present claims and withdraw this rejection.

The applicant disagrees with the examiner's statement that the application as filed does not provide specific guidance about type 4 mGluRec common intracellular domain or specific guidance as to what residues constitute extracellular or intracellular domain of the peptide. One of ordinary skill in the art will be clearly able to identify a common mGluR4 intracellular domain and an extracellular domain based on publically available information. The art has shown what an intracellular domain and an extracellular domain of mGluR4 are, at least since 1999.See, for example, Han and Hampson, J. Biol. Chem., 274(15): 10008-10013 (1999).

The newly submitted claims refer to ... "brain" type 4 metabotropic glutamic acid receptor protein" to more definitely specify the origin. See, for example, new claim 16. In addition, the new claims also show the specific amino acid sequence of the mGluR4, and its variants as defined by the nucleotide sequence encoding them.

In view of the above remarks and the fact that there was, at the time of the invention, a wealth of publically available information this invention is believed to be fully described. Based on this and the language of the newly submitted claims, this rejection is believed to be moot. The examiner is invited to withdraw it.

Note for the Record

The applicant wishes to make of record that the examiner's comments regarding the structure of the leptin receptor and/or forskolin inducible PAP1 promoter are clearly irrelevant to the written description, enablement and patentability of this invention. The PAP1 promoter is irrelevant to the present invention. It appears that the entire first full paragraph of page 5 of the Office Action may have been intended for another application being examined by the examiner.

THE LACK OF ENABLEMENT REJECTION

Claims 1-18 stand rejected under 35USC1.112, first paragraph, allegedly as lacking written description. This ground of rejection is traversed.

Claims 4-6 have been canceled, and claims 16-27 substituted therefore. The present claims contain sequences disclosed by the specification as filed. The newly submitted claims refer to ... "brain" type 4 metabotropic glutamic acid receptor protein" to more definitely specify the origin. See, for example, new claim 16. In addition, the new claims also show the specific amino acid sequence of the mGluR4, and its variants as defined by the nucleotide sequence encoding them. One skilled in the art will not be required to undergo undue experimentation in order to practice the claimed invention.

These claims are believed by the applicant to be free of the above rejection. The examiner is requested, thus, to withdraw it.

THE INDEFINITENESS REJECTION

Claims 4-6 stand rejected under 35USC1.112, second paragraph, allegedly as being indefinite at least 8 different metabotropic glutamic acid. receptor proteins have been reported to exist. This rejection is traversed.

The examiner's statement in support of this rejection is in error. The O'Hara et al. report alluded to by the examiner certainly refers to the existence of eight different metabotropic glutamic acid receptor proteins. However, O'Hara et al are not referring to "type 4 metabotropic glutamic acid receptor proteins" but to all types of metabotropic glutamic acid receptor proteins. The present claims, in addition, are limited to "brain type mGluR4 as indicated above. The applicant submits that the reference to a "brain type 4 metabotropic glutamic acid receptor protein" is clearly definite.

In view of the above, this rejection is believed to be moot. The examiner is invited to withdraw this rejection, and allow the claims.

THE ANTICIPATION REJECTION

Claims 4-6 stand rejected under 35USC1.102(b), allegedly as being anticipated by Chaudari et al. This ground of rejection is emphatically traversed.

Chaudari et al. is different from the claimed invention, and fails to render it obvious. Chaudari relates to the identification of a metabotropic glutamate receptor variant that is different from the claimed invention. Attached to this response are three different amino acid sequences: the first is for the "brain type mGIuR4", the second for Chaudhari's "taste-mGluR4" and the third is for the "mGluR4 variant" of the present invention. All three sequences have been aligned for the examiner's convenience, so that the differences are patent.

In the mGluR4 variant of the claimed invention the extracellular domain of the variant is about 316 or 327 amino acids shorter than that of the normal mGluR4. The taste-mGluR4 of Chaudhari's, in contradistinction, is 20 or 31 amino acids longer than the mGluR4 variant of the claimed invention. Additionally, the N-terminal sequence of Chaudhari's taste-mGluR4 and that of the mGluR4 variant of the claimed invention are different as well. Chaudhari, therefore, does not anticipate the claimed invention.

Moreover, there is not a simple reference in Chudary as to how to apply their method to any other sequences, let alone to focus on the "brain" protein for that purpose. Clearly, Chaudary fails to render the claimed invention obvious. The examiner is thus invited to withdraw this rejection and allow the newly submitted claims.

THE CLAIM FOR PRIORITY

The indication by the examiner that a reference to the priority applications was missing is acknowledged, with thanks.

The applicant is introducing this information into the text of the specification, at page 1.

THE CLAIM AMENDMENTS

The amendments to the claims have been made to more specifically and in a definite manner describe the invention. The new language is fully supported by the text of the specification, and by the original claims. No objectionable new matter is believed to have been introduced by the present amendments to the claims.

THE AMENDMENTS TO THE SPECIFICATION

The specification has been amended to introduce information on the priority applications. No objectionable new matter is believed to have been introduced by this amendment.

THE DRAWINGS

The indication by the examiner that the drawings filed April 21, 2004 are accepted is acknowledged, with thanks.

In view of the above amendments and remarks, the applicant believed this application to be in condition for allowance. Early notice to that effect is requested.

Respectfully submitted,
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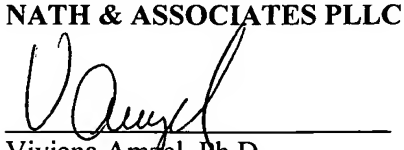

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